WHAT IS CLAIMED IS:

1. A method of reducing power required for transmitting a signal from a first transceiver to a second transceiver, comprising the acts of:

estimating an excess amount of power used by said first transceiver for transmitting said signal;

reducing a power use of said first transceiver by said excess amount of power to a reduced power level; and

transmitting said signal from said first transceiver using said reduced power level, wherein said reduced power level achieves a transmission rate of said signal within a predefined tolerance of a target rate thereof.

2. The method of claim 1, wherein said first transceiver is located at one of a central office and a remote loop carrier, and comprises a downstream transmitter and an upstream receiver, and wherein said second transceiver is located at an end user location and comprises an upstream transmitter and a downstream receiver.

3. The method of claim 2, wherein said excess amount of power for said signal is estimated in accordance with a measured value of upstream attenuation.

4. The method of claim 3, wherein said measured value of upstream attenuation is calculated as a difference between a total transmit power transmitted from said upstream transmitter and a measured power of an upstream signal received at said upstream receiver.

5. The method of claim 4, wherein a value of said excess amount of power of said signal is associated with a value of said upstream attenuation in a table.

6. The method of claim 2, wherein said first transceiver estimates a per carrier signal-to-noise ration (SNR) in accordance with bit-per-carrier, power-per-carrier, and SNR margin information received from said second transceiver.

7. The method of claim 6, wherein said first transceiver uses said bit per carrier information for estimating a rate of said signal and a rate of said signal transmitted at a selected reduced power level, for ensuring said transmission rate is maintained within said predefined tolerance.

8. The method of claim 7, wherein a second initialization is required for transmitting said signal at said reduced power level.

9. The method of claim 2, wherein said first transceiver reduces said power in accordance with an excess SNR provided by said second transceiver.

10. The method of claim 9, wherein a second initialization is required for transmitting said signal at said reduced power level.

11. The method of claim 2, wherein said excess amount of power is estimated by estimating an excess amount of SNR at said second transceiver for said target rate.

12. The method of claim 2, wherein said first transceiver provides said second transceiver with a minimum SNR inflated by a value N corresponding to said excess amount of power, and wherein said first transceiver transmits at a power level reduced by said value N if said second transceiver is capable of supporting said minimum SNR inflated by said value N.

13. A method of reducing power required for transmitting a signal from a first transceiver to a second transceiver, comprising the steps of:

determining at said second transceiver an amount of excess power in said signal transmitted from said first transceiver;

calculating at said second transceiver an attainable reduced power level for said transmitted signal; and

communicating said reduced power level between said second and first transceivers, wherein said first transceiver adjusts its power level prior to a time period that would require a second initialization.

14. The method of claim 13, wherein said second transceiver indicates a power cutback implicitly by reducing power-per-carrier information communicated to said first transceiver.

15. An apparatus for reducing power required for transmitting a signal from a central office asymmetric digital subscriber line (ADSL) termination unit (ATU-C) to

a remote ADSL termination unit (ATU-R), wherein said ATU-C includes a processor for controlling said ATU-C to implement processing including the acts of:

estimating an excess amount of power used by said ATU-C for transmitting said signal;

reducing a power use of said ATU-C by said excess amount of power to a reduced power level; and

transmitting said signal from said ATU-C using said reduced power level, wherein said reduced power level achieves a transmission rate of said signal within a predefined tolerance of a target rate thereof.

16. The apparatus of claim 15, wherein said excess amount of power for said signal is estimated in accordance with a measured value of upstream attenuation.

17. The apparatus of claim 16, wherein said measured value of upstream attenuation is calculated as a difference between a total transmit power transmitted from said ATU-C and a measured power of an upstream signal received at said ATU-C.

18. The apparatus of claim 17, wherein a value of said excess amount of power of said signal is associated with a value of said upstream attenuation in a table.

19. The apparatus of claim 15, wherein said ATU-C estimates a per carrier signal-to-noise ration (SNR) in accordance with bit-per-carrier, power-per-carrier, and SNR margin information received from said ATU-R.

20. The apparatus of claim 19, wherein said ATU-C uses said bit per carrier information for estimating a rate of said signal and a rate of said signal transmitted at a selected reduced power level, for ensuring said transmission rate is maintained within said predefined tolerance.

21. The apparatus of claim 20, wherein a second initialization is required for transmitting said signal at said reduced power level.

22. The apparatus of claim 15, wherein said ATU-C reduces said power in accordance with an excess SNR provided by said ATU-R.

23. The apparatus of claim 22, wherein a second initialization is required for transmitting said signal at said reduced power level.

24. The apparatus of claim 15, wherein said excess amount of power is estimated by estimating an excess amount of SNR at said ATU-R for said target rate.

25. The apparatus of claim 15, wherein said ATU-C provides said ATU-R with a minimum SNR inflated by a value N corresponding to said excess amount of power, and wherein said ATU-C transmits at a power level reduced by said value N if said ATU-R is capable of supporting said minimum SNR inflated by said value N.

26. An apparatus for reducing power required for transmitting a signal from a central office asymmetric digital subscriber line (ADSL) termination unit (ATU-C) to a remote ADSL termination unit (ATU-R), wherein said ATU-R includes a processor for controlling said ATU-R to implement processing including the acts of:

determining an amount of excess power in said signal transmitted from said ATU-C;

calculating an attainable reduced power level for said transmitted signal; and

communicating said reduced power level to said ATU-C, wherein said ATU-C adjusts its power level prior to a time period that would require a second initialization.

27. The apparatus of claim 26, wherein said ATU-R indicates a power cutback implicitly by reducing power-per-carrier information communicated to said ATU-C.